

Call for Applications :

PhD position (100%) in philosophy of climate science

University of Bern

The Institute of Philosophy in Bern invites applications for a PhD position (100%) in philosophy of climate science, starting 1 May 2019 (a later starting date can be considered). The position is funded by the Swiss National Science Foundation and is associated with the research project ‘The epistemology of climate change---Philosophy of science perspectives on the climate challenge’ (please see below for more information on the project). The position is funded till 31 December 2022 (there is the possibility of a short extension).

The successful applicant will conduct her or his doctoral research in relation to the project under the supervision of Prof. Vincent Lam, leading to a PhD thesis, peer reviewed publications and conference presentations. She or he will be expected to actively participate to regular research meetings in the Institute, and to help with the administration and organisation of research activities. The selected candidate will also be affiliated to the Oeschger Centre for Climate Change Research, which provides an excellent environment for interdisciplinary research related to climate change.

Applications from candidates with relevant background in philosophy of science and/or climate science are particularly welcome. A master’s degree must be in hand at the start of the position. Fluency in English is required.

The salary is competitive. Some funding for travel to relevant conferences is available.

Applications should contain a motivation letter, a CV, a one-page research statement describing the doctoral research to be pursued within the project and a writing sample of no more than 10,000 words. The applications, as well as 2 reference letters, should be sent to Prof. Vincent Lam at vincent.lam@philo.unibe.ch (the reference letters should be directly sent by the persons writing the letters). Review of the applications will start on 18. March 2019 and will continue until the position is filled.

Applications from women and underrepresented groups are explicitly encouraged.

For enquiries, please contact Prof. Vincent Lam at vincent.lam@philo.unibe.ch.

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The epistemology of climate change

Philosophy of science perspectives on the climate challenge

Understanding and modelling climate systems---in particular local ones---in an appropriate way is an extremely difficult task, but science actually quite often faces extremely difficult tasks. The specificity and the importance of climate science is that it is expected to provide scientific and empirical grounds for decision- and policy-making in the face of the climate challenge. This research project aims to carefully investigate

and clarify the methodological and epistemic foundations of climate science and climate modelling using the tools of philosophy of science in order to provide the best possible support for addressing the climate challenge, with particular attention to local, regional climate modelling and decision-making at the national level (Switzerland will be taken as a study case). Indeed, mitigation and above all adaptation requires appropriate policy-making at the national level. Moreover, appropriate understanding of the climate-related issues at the local level may enhance public support and adherence to climate policy.

While there is a large consensus about model projections for global trends such as increasing global mean surface temperature under various emissions scenarios, the reliability of more local (and long term) projections is far weaker. But impact assessment and policy-making at the national level typically rely on local, high-resolution climate projections. In many ways, climate modelling and climate decision-making are now at a turning point, facing the tension between, on the one hand, the current focus on more detailed, complex climate models and on increasing computational resources and, on the other hand, possible fundamental epistemic constraints (such as structural instabilities) and uncertainties linked to high-resolution (local, long term) projections.

The project is divided in four strongly interconnected parts. The first part provides a detailed and critical landscape of the main current epistemic issues in contemporary climate science and climate modelling, with a focus on the degree of expert consensus. The second part aims to evaluate to what extent certain structural epistemic features of climate models (such as structural model error) point towards some fundamental epistemic limitation for climate modelling and may require some kind of 'paradigm' shift in the epistemology of climate science, where expert judgement may explicitly play a more important role in complement to complex climate model outputs. The third part investigates the nature and the role of scientific understanding and explanation (central to expert judgement) in climate science and climate modelling. The goal is to bring a new perspective on and develop a clear conceptual framework for the explanatory schemes and the relationships between the various (local and global) levels at work in climate science and climate modelling. The fourth part takes regional climate modelling in the Swiss context as a study case.